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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Lee et al.

Group Art Unit: Unknown

Serial No.: 10/519,021

Examiner: : Unassigned

Filed: Dec. 22, 2004

Docket No.: 290.00320120

International Filing Date: June 30, 2003

Confirmation No.: 3299



Title: **MAGNETIC NANOMATERIALS AND METHODS FOR DETECTION OF BIOLOGICAL MATERIALS**

Mail Stop Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting the following documents along with this Transmittal Sheet (which is submitted in triplicate):

☒ **Small entity status is entitled to be asserted in the above-identified application.**

☒ An itemized return postcard.

☐ A Petition for Extension of Time for \_\_ month(s) and a check in the amount of \$\_\_ for the required fee.

☒ An Information Disclosure Statement (2 pgs); 1449 forms (3 pgs); and copies of 24 documents cited on the 1449 forms.

☐ A request for continued examination (RCE) and a check in the amount of \$\_\_, for the required filing fee.

☐ An Appeal Brief and a check in the amount of \$\_\_, for the required Appeal Brief filing fee.

☐ A check in the amount of \$\_\_, representing \_\_.

☐ A certified copy of a \_\_ application, Serial No. \_\_, filed \_\_\_\_, the right of priority of which is claimed under 35 U.S.C. §119.

☐ Other: \_\_.

☐ Amendment ☐ No Additional fee is required. ☐ The fee has been calculated as shown:

Fee Calculation for Claims Pending After Amendment					
	Pending Claims after Amendment (1)	Claims Paid for Earlier (2)	Number of Additional Claims (1-2)	Cost per Additional Claim	Additional Fees Required
Total Claims				x \$25 =	
Independent Claims				x \$100 =	
One or More New Multiple Dependent Claims Presented? If Yes, Add \$180 Here →					
Total Additional Claim Fees Required					

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 13-4895. Triplicate copies of this sheet are enclosed.

**CERTIFICATE UNDER 37 C.F.R. §1.8:** The undersigned hereby certifies that this Transmittal Letter and the paper(s), as described hereinabove, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 8<sup>th</sup> day of August, 2006.

MUETING, RAASCH & GEBHARDT, P.A.

Customer Number: 26813

By: 

Victoria A. Sandberg

Reg. No.: 41,287

Direct Dial: 612-305-1226

Facsimile: 612-305-1228



PATENT  
Docket No. 290.00320120

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Filed:	Dec. 22, 2004	)	International Filing Date:	June 30, 2003
		)		
For:	MAGNETIC NANOMATERIALS AND METHODS FOR DETECTION OF BIOLOGICAL MATERIALS			

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the continuing duty of candor and good faith that is to be demonstrated before the United States Patent and Trademark Office (USPTO), the materials enclosed herewith are brought to the Examiner's attention as possibly being of interest in connection with the above-identified patent application. Pursuant to MPEP § 609, the information cited in the present Information Disclosure Statement shall not be construed to be an admission that the information is, or is considered to be, material to patentability. Consideration of each of the documents listed on the attached 1449 form(s) is respectfully requested. Pursuant to the provisions of MPEP §609, Applicants further request that a copy of the 1449 form(s), marked as being considered and initialed by the Examiner, be returned with the next Official Communication.

It is believed that no fee is due, as this Supplemental Information Disclosure Statement is filed prior to the receipt of any Action on the merits. However, in the event a fee is due, please charge any fee or credit any overpayment to Account No. 13-4895.

**Supplemental Information Disclosure Statement**

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Applicant(s): Lee et al.

Serial No.: 10/519,021

Confirmation No.: 3299

Filed: Dec. 22, 2004

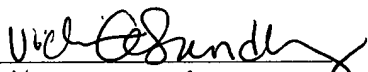
International Filing Date: June 30, 2003

For: MAGNETIC NANOMATERIALS AND METHODS FOR DETECTION OF BIOLOGICAL MATERIALS

When the Examiner takes up the present application, consideration of these documents is respectfully requested. The Examiner is invited to contact Applicants' Representatives at the below-listed telephone number, if they can be of any assistance during prosecution of the present application.

**CERTIFICATE UNDER 37 C.F.R. 1.8:**

The undersigned hereby certifies that this paper is being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 8<sup>th</sup> day of August, 2006.

  
VICTORIA A. SANDBERG

Aug 8, 2006  
Date

Respectfully submitted

By

Mueting, Raasch & Gebhardt, P.A.

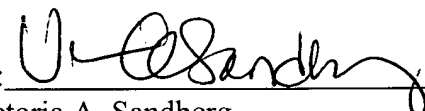
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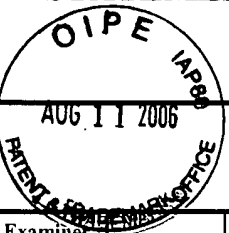
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<b>INFORMATION DISCLOSURE STATEMENT</b> 	Atty. Docket No.: 290.00320120	Serial No.: 10/519,021
	Applicant(s): LEE et al.	Confirmation No.: 3299
	Application Filing Date: Dec. 22, 2004	Group: Unknown
	Information Disclosure Statement mailed: August <u>8</u> , 2006	

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	2002/0177143	11/28/2002	Mirkin et al.			
	2004/0086885 A1	05/06/2004	Lee et al.			

## FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	NONE						

## OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial	Copy Enclosed	Document Description
	X	Chen et al., "Gold-coated iron nanoparticles for biomedical applications" <i>J. Appl. Phys.</i> , 2003;93:7551-3.
	X	Choi et al., "Unusual thermochromic behavior of photoreactive dyes confined in helical amylose as inclusion complex" <i>Macromolecules</i> , 1998;31:9406-8.
	X	Daniel et al., "Gold nanoparticles: assembly, supramolecular chemistry, quantum-size-related properties, and applications toward biology, catalysis, and nanotechnology" <i>Chem. Rev.</i> , 2004;104:293-346.
	X	Dixit et al., "Synthesis and grafting of thioctic acid-PEG-folate conjugates onto Au nanoparticles for selective targeting of folate receptor-positive tumor cells" <i>Bioconjug. Chem.</i> , 2006;17:603-9.
	X	Foos et al., "Thiol-terminated di-, tri-, and tetraethylene oxide functionalized gold nanoparticles: a water-soluble, charge-neutral cluster" <i>Chem. Mater.</i> , 2002;14:2401-8.
	X	Goodman et al., "Biomacromolecule surface recognition using nanoparticles" <i>Mini-Rev. Org. Chem.</i> , 2004;1:103-14.
	X	Hohreiter et al., "Cross-correlation analysis for temperature measurement" <i>Meas. Sci. Technol.</i> , 2002;13:1072-8.

EXAMINER	Date Considered
*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

<b>INFORMATION DISCLOSURE STATEMENT</b>	<b>Atty. Docket No.:</b> 290.00320120	<b>Serial No.:</b> 10/519,021
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	X	Jackson et al., "PCR analysis of tissue samples from the 1979 Sverdlovsk anthrax victims: the presence of multiple bacillus anthracis strains in different victims" <i>Proc. Natl. Acad. Sci.</i> , 1998;95:1224-9.
	X	Jain, "Delivery of molecular medicine to solid tumors: lessons from in vivo imaging of gene expression and function" <i>J. Control. Release</i> , 2001;74:7-25.
	X	Kim et al., "A novel supramolecular self-assembly thin film with spontaneous polar order" <i>Thin Solid Films</i> , 1998;327-329:172-5.
	X	Kim et al., "Second harmonic generation by spontaneous self-poling supramolecular thin films of amylose-dye inclusion complex" <i>J. Am. Chem. Soc.</i> , 1996;118:12220-1.
	X	Kohler et al., "A bifunctional poly(ethylene glycol) silane immobilized on metallic oxide-based nanoparticles for conjugation with cell targeting agents" <i>J. Am. Chem. Soc.</i> , 2004;126:7206-11.
	X	Kucik et al., "Forward transport of glycoproteins on leading lamellipodia in locomoting cells" <i>Nature</i> , 1989;340:315-7.
	X	Kumar et al., "Analysis of mutations in the pore-forming region essential for insecticidal activity of a <i>Bacillus thuringiensis</i> delta-endotoxin" <i>J. Bacteriol.</i> , 1999;181:6103-7.
	X	Mangeny et al., "Synthesis and properties of water-soluble gold colloids covalently derivatized with neutral polymer monolayers" <i>J. Am. Chem. Soc.</i> , 2002;124:5811-21.
	X	Mock et al., "Anthrax" <i>Annu. Rev. Microbiol.</i> , 2001;55:647-71.
	X	Mornet et al., "Magnetic nanoparticle design for medical diagnosis and therapy" <i>J. Mater. Chem.</i> , 2004;14:2161-75.
	X	O'Connor et al., "Magnetic properties of FePt <sub>x</sub> /Au and CoPt <sub>x</sub> /Au core-shell nanoparticles" <i>J. Magn. Magn. Mater.</i> , 2001;226:1915-7.
	X	Sonvico et al., "Folate-conjugated iron oxide nanoparticles for solid tumor targeting as potential specific magnetic hyperthermia mediators: synthesis, physicochemical characterization, and in vitro experiments" <i>Bioconjug. Chem.</i> , 2005;16:1181-8.

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	X	Tokumitsu et al., "Grafting of alkanethiol-terminated poly(ethylene glycol) on gold" <i>Langmuir</i> , 2002;18:8862-70.
	X	Tshikhudo et al., "Biocompatible gold nanoparticles" <i>Mater. Sci. Technol.</i> , 2004;20:980-4.
	X	Van den Bossche et al., "Synthesis and grafting of folate-PEG-thioctic acid conjugates to Au nanoparticles for selective targeting of cancer cells" Poster Presentation at: Particles 2005- Surface Modification in Particle Technology, San Francisco, CA, Aug. 13-16, 2005.
	X	Welkos et al., "The role of antibodies to Bacillus anthracis and anthrax toxin components in inhibiting the early stages of infection by anthrax spores" <i>Microbiol.</i> , 2001;147:1677-85.
	X	Zhang et al., "Surface modification of superparamagnetic magnetite nanoparticles and their intracellular uptake" <i>Biomaterials</i> , 2002;23:1553-61.

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